



INDIAN INSTITUTE OF SPACE SCIENCE & TECHNOLOGY

(Department of Space, Government of India)

Valiamala, Thiruvananthapuram-695 547, Kerala

Tel: 0471 - 256 8451, Fax : 0471-2568406

Email : purchase@iiist.ac.in

web : <https://www.iiist.ac.in>

REQUEST FOR PROPOSAL

[Attached to and read together with:

- i. Invitation to Tender No. 201700474801 dated 11.01.2018
- ii. Form No.P003 – Instructions to Tenders and Terms and Conditions of Contract
- iii. Form No.P005 B – Instructions to Tenderers and General Terms and Conditions of Purchase]

Supply, Installation, Testing & Commissioning of Hardware and Software for setting up of a VIRTUAL SERVER INFRASTRUCTURE

Table of Contents

- 1 INTRODUCTION to RFP
- 2 GENERAL CONDITIONS OF RFP
- 3 SCHEDULE OF EQUIPMENTS/SERVICES REQUIRED
- 4 SCHEDULE OF DETAILED TECHNICAL SPECIFICATIONS
- 5 SCOPE OF WORK / SCHEDULE OF SERVICES REQUIRED
- 6 ELIGIBILITY CONDITIONS for BIDDERS
- 7 AMENDMENTS TO RFP
- 8 SCHEDULE OF BID DOCUMENTS
- 9 EVALUATION OF BIDS
- 10 SCHEDULE OF EXECUTION OF WORK AND PAYMENT

ANNEXURE I - BIDDER CHECK LIST

ANNEXURE II – TECHNICAL & COMMERCIAL BID formats

ANNEXURE III – COMMERCIAL TERMS & CONDITIONS

1 INTRODUCTION to RFP

- 1.1 This Request for Proposal intends to specify the requirements for procurement of Hardware and Software for setting up a VIRTUAL SERVER INFRASTRUCTURE in IIST.
- 1.2 For this, IIST wishes to choose an appropriately qualified and experienced system integrator or original equipment manufacturer through an open and competitive bidding process.
- 1.3 The Requirement of Equipment and Services, Technical Specifications & Scope of Work are specified in this RFP.
- 1.4 Prospective bidders are advised to carefully read and understand the RFP, especially the technical specifications and scope of work to meet requirements as per this RFP.

2 GENERAL CONDITIONS OF RFP

- 2.1 Tenders are invited in the form of sealed competitive bids from reputed Original Equipment Manufacturers of Computer Server Hardware or its System Integrator partners in India, for Supply, Installation, Testing & Commissioning of Computer Hardware and Software as per the Technical Specifications and Scope of Work included in this document.
- 2.2 Tender Documents are made available for download from IIST's Web Site, and shall not be available elsewhere. Formats for submission of Technical Bids and Commercial Bids are also made available for download. The tender should be submitted as per formats published along with all additional, necessary or relevant documents in support of qualifications and experience.

3 SCHEDULE OF EQUIPMENTS/SERVICES REQUIRED

- 3.1 Description of the major equipments / services and quantity required are listed below.

S.No.	BILL OF MATERIAL OF EQUIPMENTS/SERVICES REQUIRED	QTY	UoM
1	Dual-Processor Rack-Mount Servers	4	nos.
2	RHEL Server Operating System SW for VMs	16	nos.

S.No.	BILL OF MATERIAL OF EQUIPMENTS/SERVICES REQUIRED	QTY	UoM
3	RHEL Workstation Operating System SW	2	nos.
4	WINDOWS Server Operating System SW for VMs	4	nos.
5	WINDOWS Server Operating System SW	2	nos.
6	VMWare VSphere SW	4	nos.
7	Server Rack, 42U, 600mm x 1200mm	4	nos.
	Documents, including testing and commissioning certificates, and warranty certificates.		set

4 SCHEDULE OF DETAILED TECHNICAL SPECIFICATIONS

4.1 Detailed Technical Specifications of Equipments / Services Required are as listed below.

S.No.	Equipments/Services Required	Part	Technical Specifications of Equipments/Services Required
1	Dual-Processor Rack-Mount Servers	Chassis	2U 19" Rack Mountable, and supplied with necessary OEM Sliding Rack-Mount Kit and Cable-Management Arm.
		Processor	2nos of Intel Xeon 2650v4 or later generation processors, each having at least 12-cores and processor base frequency of at least 2.2 GHz.
		Motherboard	Intel® Series Chipset, with not more than 2 sockets.
		Memory	256GB DRAM, scalable to atleast 768GB using DDR4 operating at 2400 MHz or higher.
		Disk Drive Bays	Atleast 16 hot plug drive bays, to install a combination of SFF or LFF HDDs, including atleast 4 SSDs.
		Disk Drives	Shall support Hot-Plug SFF or LFF SATA/SAS/NL-SAS/SSD disk drives and NVMe drives.
			Atleast 3 nos of high-endurance SFF SSD, totaling atleast 600GB.
			At least 3nos of 10K RPM SAS HDD totaling atleast 1.5 TB.
			At least 3nos of 7.2K RPM NL-SAS/SATA HDD totaling atleast 6 TB.
			Atleast 7 free slots to add HDDs/SSDs for future addition.
		Optical Drives	DVD Read/Write drive.
		RAID Controller	RAID controller shall support multiple channels of SSDs and HDDs RAID.
			PCIe 3.0 based 12Gb/s SAS Raid Controller with RAID 0/1/01/5/10 with 4GB battery-backed write cache.
			RAID controller shall support RAID-passthrough/JBODs and large queue-depths to support VMWare VSAN hosting requirements.
		Network Connectivity	1Gbps and 10Gbps Ethernet connectivity through RJ45 network adaptors and Cat6 cables.
			Atleast 4nos of 1Gbps full-duplex interfaces.

S.No.	Equipments/Services Required	Part	Technical Specifications of Equipments/Services Required
			Atleast 2nos of 10Gbps full-duplex dual-port interfaces.
			Include suitable network cables to interconnect with 10GBase-T RJ45/SFP ports of 10Gbps ethernet Switch.
			Shall support iSCSI, FCoE, and Virtualisation.
		External Storage Connectivity	Support Fibre Channel Host Bus Adaptor, with multipaths for no single point failure.
			Atleast 2nos of dual-port 16Gbps auto-negotiable Fibre Channel HBA.
			Include suitable fibre cables to interconnect with 8Gbps FC ports of SAN Switch.
			Interface shall be compatible with existing SAN/SAN Switch.
			Interfaces shall support Virtualisation.
		Data Connectivity	Serial port.
			Micro SD slot (desirable).
			Atleast 5nos of USB 3.0 interfaces, of which atleast 2 are external interfaces.
		PCI Bus Slots	At least six PCI-Express 3.0 slots Atleast two x16 PCIe slots.
		Video Port	Shall have 1 VGA/HDMI video port with cache.
		Power Supply	Hot-plug high-efficiency redundant power supplies that shall power fully-loaded configuration of server, including hard drives. Shall be rated for Indian standards.
		Cooling Fans	Redundant hot-plug system fans to cool fully-loaded configuration of server, including hard drives.
		Industry Standard Compliance	ACPI 6.1, PCIe 3.0 compliant. Support PXE, WOL, USB 3.0/2.0, Energy Star, ASHRAE A3/A4
		Operating Systems and Virtualization Software Support	Microsoft Windows Server 2012 or later Red Hat Enterprise Linux (RHEL 6.0 or higher) Vmware Vsphere 6.5 and VSAN 6.0 or higher All server components to be compliant for virtualization under HCL of VMWare VSphere/VSAN.
		System Security	Secure, authentic and verifiable upgrade of firmware and software. Detect arbitrary or compromised firmware codes or algorithms. Enable roll-back of upgraded firmware. Chassis Intrusion Detection
		Embedded Remote Management	Exclusive System Remote Management port to access embedded Web-based GUI console having features for virtual power-off/on, remote-boot etc. Remote Management port shall support Ethernet PIV4/IPV6/802.1Q VLAN. Update/upgrade of software, firmware and software patches from remote clients. Support agentless management using out-of-band remote management port. Support monitoring and recording changes in the server hardware and system configuration. Support management of multiple servers. Support embedded remote support to transmit hardware events to OEM.

S.No.	Equipments/Services Required	Part	Technical Specifications of Equipments/Services Required
		Server Management	OEM Server Management Software to monitor and view consolidated inventory and status of server resources and monitor its health. Update Software, Firmware of Server System and its components. Alert about deteriorating performance, developing faults and possible failures of all vital elements of the server like disk-drives, processor, memory etc. Push traps and syslog of events to external Management Servers. Integrate with VMWare Vcentre. Remote Media Access with Virtual Media Remote video, keyboard, and mouse control with Virtual Console
		OEM Assurance	Equipment supplied shall be in the current manufacturing range of the OEM and have the latest technical features and specifications. OEM shall assure that the model of equipment quoted shall not be declared end-of-sale by the OEM for at least 2 years from date of supply. OEM shall assure that the model of equipment quoted shall not be declared end-of-support by the OEM for at least 7 years from date of supply.
		OEM Warranty	OEM or the bidder shall provide Warranty for cost-free parts/labor repair/replacement of hardware and update of software of the equipment supplied on NBD basis for a period of 5years from date of installation. OEM shall make available a public Internet URL that can be accessed 24x7 during warranty period for product/technical support information, and track status of warranty, support contract etc.
2	RHEL Server Operating System SW for VMs		Perpetual license/subscription of RedHat Enterprise Linux 6.0 or later version, with 3year updates, self/basic support, for operation of atleast 16 VMs in a cluster of virtualized hosts, each node having 2P/24C.
3	RHEL Workstation Operating System SW		Perpetual license/subscription of RedHat Enterprise Linux for WorkStation 6.0 or later version, with 3year updates, self/basic support, for operation in 1P/4C workstations.
4	WINDOWS Server Operating System SW for VMs		Perpetual license/subscriptions of Microsoft Windows Server 2012/16, Standard / Essential Edition, with 3year updates, self/basic support, for operation of 4 VMs in a cluster of virtualized hosts, each node having 2P/12C.
5	WINDOWS Server Operating System SW		Perpetual licenses of Microsoft Windows Server 2012/16, Standard / Essential Edition, with 3year updates, self/basic support, for operation in 2P/4C hosts.
6	VMWare VSphere Software		VMware VSphere ESX 6.5 Standard latest version license for 4N/8P, with 3year updates, self/basic support, compliant and interoperable with VCenter 6.5 and VSAN 6.6 or later.
7	Server Rack, 42U, 600mm x 1200mm		Server Rack, 19", 42U, 600x1200mm Floor
			Adjustable Fully Recessible 19" Vertical Posts/Mounting Angles
			Split pair of 19" Mounting Angles at Rear to accommodate equipment of different depths.
			Hinged, Fully Perforated Steel Doors in Front and Rear. Vertical half-width Split Doors preferred.
			Removable, non-perforated Steel Side Panels.
			Steel Top Cover, with provision for Cable Entry
			Steel Bottom Cover, with provision for Cable Entry
			Top-Cover-mounted Ventilating Fans
			Heavy Duty Castor Wheels with Brakes
			2nos of 36-42U Cable Channel with Guides/Loops
			Load-bearing capacity of at least 800kgs.
			Manufactured in India by APW, APC, Rittal, HP or Netrack
			2nos of 12-socket or higher vertical PDU, with 15A/5A IEC Sockets, Power Indicator, MCB, 3m 32A Power Cable.

5 SCOPE OF WORK / SCHEDULE OF SERVICES REQUIRED

5.1 The OEM/Partner chosen as the successful bidder for this RFP shall :

- (i) Position a SPOC / single-point-of-contact.
- (ii) Verify and ensure that the specification of all items supplied complies with or is superior to the technical specification mentioned in the RFP.
- (iii) Install, configure and integrate all equipments supplied as per design document made available by IIST to the successful bidder.
- (iv) Supply any other component or undertake any other work that may be deemed necessary to successfully commission the project.
- (v) Submit a well-defined Acceptance Test Plan and provide support for verification, testing and commissioning of the work executed.
- (vi) Provide sufficient training to the technical staffs delegated by IIST.
- (vii) Provide documentation of all technical configurations done.
- (viii) Provide OEM technical manuals accompanying the products supplied.
- (ix) Provide OEM warranty documents of all products supplied.
- (x) Undertake necessary on-site repair and replacement services during the warranty period to ensure trouble-free operation of the equipment.
- (xi) Provide warranty services like free product upgrades etc. that may be offered by the OEM during the warranty period, in addition to those specifically cited in the work order.

6 ELIGIBILITY CONDITIONS for BIDDERS

6.1 The bidder shall

- (i) be a Firm / Society / Company registered in India.
- (ii) have valid GST registration in India
- (iii) have valid PAN in India.

6.2 The bidder shall be an OEM of the Server quoted, or an Authorised System Integrator Partner of the OEM. The bidder should have been in the business of IT and System Integration in India for the past 3 years (2014-2017), and have relevant experience in undertaking and executing similar work as in this RFP.

6.3 The bidder shall provide proof of Manufacturer's Authorisation and OEM's commitment for Warranty Support as per RFP for the items quoted.

6.4 The bidder or the OEM shall have one of its offices or one of its technical-personnel stationed in Thiruvananthapuram to provide On-Site Warranty Maintenance & Technical Support Services at IIST.

6.5 The bidder should have reputed clients that include at least 3 from any of the following industry segments : Government, Defense, Higher-Educational Institutions.

6.6 At least 3 employees of the bidder shall be certified to undertake any of the following :

- Installation, Configuration and Maintenance of RHEL systems.
- Installation & Configuration of VSphere ESX systems.
- Installation & Configuration of Windows Server 2012 systems.

- 6.7 The bidder should have successfully executed at least 1 work of at least 80% of the value to be quoted; or 2 works of at least 50% of the value to be quoted; or 3 works of at least 40% of the value to be quoted; during the last 3 years (2014-2017). Works executed shall be similar to the scope of work and bill of materials specified in this RFP.
- 6.8 IIST may satisfy itself with regard to the veracity of any or all information related to the bidder's eligibility during the process of evaluation.

7 AMENDMENTS TO RFP

- 7.1 At any time, prior to the date of submission of bids, IIST may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, modify the bid documents by amendments.
- 7.2 The amendments shall be notified and published at the location from where the original tender documents were made accessible and available for download as notified in the Tender Notification.
- 7.3 All amendments so published shall form the integral part of this RFP and shall be read together with this document and constitute the RFP.

8 SCHEDULE OF BID DOCUMENTS

- 8.1 The bid documents to be submitted by the bidder shall consist of **two parts** :
- 8.1.1 PART A : TECHNICAL BID, including :
- (i) EMD, Security Deposit.
 - (ii) Details of Incorporation, GST, PAN.
 - (iii) Signed copy of non-priced Commercial Bid.
 - (iv) Signed copy of Detailed Bill of Material of equipments offered by the bidder.
 - (v) Signed copy of Technical Compliance/Deviation Statement.
 - (vi) Printed copies (or alternatively state the public Internet URLs) of Leaflets/Brochures/Datasheets containing the technical specifications published by the OEM
- 8.1.2 PART B : COMMERCIAL BID, including :
- (i) Signed copy of Commercial Bid. Prices quoted as per commercial bid format given in Annexure shall clearly indicate GST and any other levies or taxes.
- 8.1.3 The bid documents shall be duly signed and submitted in a large sealed envelope enclosing two smaller envelopes, sealed and superscribed "PART A: Technical Bid" and "PART B: Commercial Bid".

9 EVALUATION OF BIDS

- 9.1 The envelope marked as PART A: Technical Bid inside the BID Envelope shall be opened and evaluated to ascertain the best and technically superior bid.
- 9.2 Commercial Bids of bidders whose technical bids are accepted only will be considered for evaluation.
- 9.3 Bidder whose Commercial Bid is found to be the lowest after evaluation, alone will be accepted. However, IIST reserves the right to reject accept any bid in consideration of its interest and at its discretion. In this regard, the decision of the Director, IIST shall be final and binding on all the bidders.

10 SCHEDULE OF EXECUTION OF WORK AND PAYMENT

- 10.1 Payment for equipment delivered / services executed by the contractor shall be made in the following stages, consistent with the work completed, as a percentage of the contract value as per the schedule given below:

Schedule	Target Date of Completion	Payment	Conditions
Delivery	4-6 weeks, starting w.e.f. date of Purchase Order.	80% on Completion of Delivery of Equipments.	Against completion of work as per schedule; and submission/verification of delivery challans, invoices, installation reports, drawings, acceptance test reports, performance bank guarantee, statutory deductions, penalties etc.
Installation/ Testing / Commissioning.	6 weeks from date of Purchase Order	10% on Completion of Installation/ Testing / Commissioning.	
Warranty Services & Technical Support	5 years from date of Commissioning	Remaining on Completion of Warranty.	

ANNEXURE I**BIDDER CHECK LIST**

I	LIST OF DOCUMENTS TO BE ENCLOSED IN TECHNICAL BID				Page Number (from-to)
1	Tender Fee		<i>Rs.</i>		
2	EMD		<i>Rs.</i>		
3	Letter of Unconditional Acceptance of Terms & Conditions of RFP.		<i>To be printed in Official Letter Head</i>		
4	Proof of GST		<i>Copy</i>		
5	Proof of PAN		<i>Copy</i>		
6	Proof of bidder's business of IT and System Integration in India for the past 3 years (2014-2017), and relevant experience in undertaking and executing similar work as in this RFP.		<i>Copy of Work Order 2014-15</i>		
			<i>Copy of Work Order 2015-16</i>		
			<i>Copy of Work Order 2016-17</i>		
7	Proof of Manufacturer's Authorisation and commitment for OEM's Warranty Support as per RFP for the items quoted.	OEM 1	<i>Copy of Warranty Support from OEM</i>		
		OEM 2	<i>Copy of Warranty Support from OEM</i>		
8	Proof of Office Location : Whether the Bidder has office in Thiruvananthapuram, to provide Comprehensive On-Site Warranty Maintenance & Technical Support Services		<i>Details of Head of Office, Postal Address, Telephone No., Fax No., Contact Person etc.</i> <i>To be printed in Official Letter Head</i>		
9	Proof of bidders The bidder should have successfully executed 1 work of at least 80% of the value to be quoted; or 2 works of at least 50% of the value to be quoted; or 3 works of at least 40% of the value to be quoted; during the last 3 years (2014-2017).				
10	Person authorized to sign the bid on behalf of the Bidder.	Name of Person			
			<i>Attach Attested True Copy of Original Power of Attorney</i>		
11	TECHNICAL BID		<i>PART A : TECHNICAL BID 1. Consolidated Bill of Material of Equipments/Services Offered.</i>	<i>Technical Specification Compliance Sheet & Product Specification Sheets</i>	

I	LIST OF DOCUMENTS TO BE ENCLOSED IN TECHNICAL BID				Page Number (from-to)
			<i>PART A : TECHNICAL BID 2.Detailed Bill of Material of Equipments/Services Offered.</i>		
			<i>PART A : TECHNICAL BID 3.Compliance / Deviation of Technical Specifications of Equipments/Services Offered.</i>		

II	LIST OF DOCUMENTS TO BE ENCLOSED IN COMMERCIAL BID				Page Number (from)
1	Covering Letter forwarding Commercial Bid.		<i>To be printed in Official Letter Head</i>		
2	COMMERCIAL BID		<i>PART B : COMMERCIAL BID Costs as per Schedule of Equipments/Services Required.</i>		

ANNEXURE II**PART A : TECHNICAL BID****1. Consolidated Bill of Material of Equipments/Services Offered.**

S.No.	TECHNICAL BID : Schedule of Material quoted, without Costs.	Unit Supply Cost (Rs.)	QTY	UoM	Total Unit SUPPLY Cost incl.Taxes (Rs.)(A)	Goods & Service Tax (%)	Goods & Service Tax (%) (Rs.)	TOTAL SUPPLY Cost incl.Taxes (Rs.)(A x QTY)
	(Detailed Bill of Materials w/o COST to be provided as part of TECHNICAL BID by BIDDER)							
A	ACTIVE Components	-			-	-	-	-
1	Dual-Processor Rack-Mount Servers	-	4	nos.	-	-	-	-
2	RHEL Server Operating System SW for VMs	-	16	nos.	-	-	-	-
3	RHEL Workstation Operating System SW	-	2	nos.	-	-	-	-
4	WINDOWS Server Operating System SW for VMs	-	4	nos.	-	-	-	-
5	WINDOWS Server Operating System SW	-	2	nos.	-	-	-	-
6	VMWare VSphere SW	-	4	nos.	-	-	-	-
7	Server Rack, 42U, 600mm x 1200mm	-	4	nos.	-	-	-	-
	Documents, including testing and commissioning certificates, and warranty certificates.	-			-	-	-	-
	TOTAL (in figures)	-			-	-	-	-
	TOTAL (in words)	-						
Bidder's Office Seal					Signature with Date			
Name of Bidder					Name of Authorised Signatory of Bidder:			

PART A : TECHNICAL BID

2. Detailed Bill of Material of Equipments/Services Offered.

S.No.	Equipments/Services Required	Part	Mfr/Model Name	Mfr/Model	Qty offered.
1	Dual-Processor Rack-Mount Servers	Chassis			
		Processor			
		Motherboard			
		Memory			
		Disk Drives			
		Optical Drives			
		RAID Controller			
		Network Connectivity			
		External Storage Connectivity			
		Data Connectivity			
		Power Supply			
		Cooling Fans			
		System Security			
		Embedded Remote Management			
		Server Management			
		OEM Assurance			
		OEM Warranty			
2	RHEL Server Operating System SW for VMs				
3	RHEL Workstation Operating System SW				
4	WINDOWS Server Operating System SW for VMs				
5	WINDOWS Server Operating System SW				
6	VMWare VSphere Software				
7	Server Rack, 42U, 600mm x 1200mm				
Bidder's Office Seal			Signature with Date		
Name of Bidder			Name of Authorised Signatory of Bidder:		

PART A : TECHNICAL BID

3. Compliance / Deviation of Technical Specifications of Equipments/Services Offered.

S.No.	Equipments/Services Required	Part	Technical Specifications of Equipments/Services Required	Mfr/Model Name	Mfr/Model /Part Number	Qty offered	Deviation, if any.
1	Dual-Processor Rack-Mount Servers	Chassis	2U 19" Rack Mountable, and supplied with necessary OEM Sliding Rack-Mount Kit and Cable-Management Arm.				
		Processor	2nos of Intel Xeon 2650v4 or later generation processors, each having at least 12-cores and processor base frequency of at least 2.2 GHz.				
		Motherboard	Intel® Series Chipset, with not more than 2 sockets.				
		Memory	256GB DRAM, scalable to atleast 768GB using DDR4 operating at 2400 MHz or higher.				
		Disk Drive Bays	Atleast 16 hotplug drive bays, to install a combination of SFF or LFF HDDs, including atleast 4 SSDs.				
		Disk Drives	Shall support Hot-Plug SFF or LFF SATA/SAS/NL-SAS/SSD disk drives and NVMe drives.				
			Atleast 3 nos of high-endurance SFF SSD, totaling atleast 600GB.				
			At least 3nos of 10K RPM SAS HDD totaling atleast 1.5 TB.				
			At least 3nos of 7.2K RPM NL-SAS/SATA HDD totaling atleast 6 TB.				
			Atleast 7 free slots to add HDDs/SSDs for future addition.				
		Optical Drives	DVD Read/Write drive.				
		RAID Controller	RAID controller shall support multiple channels of SSDs and HDDs RAID.				
			PCIe 3.0 based 12Gb/s SAS Raid Controller with RAID 0/1/01/5/10 with 4GB battery-backed write cache.				
			RAID controller shall support RAID-passsthrough/JBODs and large queue-depths to support VMWare VSAN hosting requirements.				
		Network Connectivity	1Gbps and 10Gbps Ethernet connectivity through RJ45 network adaptors and Cat6 cables.				
			Atleast 4nos of 1Gbps full-duplex interfaces.				
			Atleast 2nos of 10Gbps full-duplex dual-port interfaces.				
			Include suitable network cables to interconnect with 10GBase-T RJ45/SFP ports of 10Gbps ethernet Switch.				
			Shall support iSCSI, FCoE, and Virtualisation.				

S.No.	Equipments/Services Required	Part	Technical Specifications of Equipments/Services Required	Mfr/Model Name	Mfr/Model /Part Number	Qty offered	Deviation, if any.
		External Storage Connectivity	Support Fibre Channel Host Bus Adaptor, with multipaths for no single point failure.				
			Atleast 2nos of dual-port 16Gbps auto-negotiable Fibre Channel HBA.				
			Include suitable fibre cables to interconnect with 8Gbps FC ports of SAN Switch.				
			Interface shall be compatible with existing SAN/SAN Switch.				
			Interfaces shall support Virtualisation.				
		Data Connectivity	Serial port.				
			Micro SD slot (desirable).				
			Atleast 5nos of USB 3.0 interfaces, of which atleast 2 are external interfaces.				
		PCI Bus Slots	At least six PCI-Express 3.0 slots Atleast two x16 PCIe slots.				
		Video Port	Shall have 1 VGA/HDMI video port with cache.				
		Power Supply	Hot-plug high-efficiency redundant power supplies that shall power fully-loaded configuration of server, including hard drives. Shall be rated for Indian standards.				
		Cooling Fans	Redundant hot-plug system fans to cool fully-loaded configuration of server, including hard drives.				
		Industry Standard Compliance	ACPI 6.1, PCIe 3.0 compliant. Support PXE, WOL, USB 3.0/2.0, Energy Star, ASHRAE A3/A4				
		Operating Systems and Virtualization Software Support	Microsoft Windows Server 2012 or later Red Hat Enterprise Linux (RHEL 6.0 or higher) Vmware Vsphere 6.5 and VSAN 6.0 or higher All server components to be compliant for virtualization under HCL of VMWare VSphere/VSAN.				
		System Security	Secure, authentic and verifiable upgrade of firmware and software. Detect arbitrary or compromised firmware codes or algorithms. Enable roll-back of upgraded firmware. Chassis Intrusion Detection				

S.No.	Equipments/Services Required	Part	Technical Specifications of Equipments/Services Required	Mfr/Model Name	Mfr/Model /Part Number	Qty offered	Deviation, if any.
		Embedded Remote Management	<p>Exclusive System Remote Management port to access embedded Web-based GUI console having features for virtual power-off/on, remote-boot etc.</p> <p>Remote Management port shall support Ethernet PIV4/IPV6/802.1Q VLAN.</p> <p>Update/upgrade of software, firmware and software patches from remote clients.</p> <p>Support agentless management using out-of-band remote management port.</p> <p>Support monitoring and recording changes in the server hardware and system configuration.</p> <p>Support management of multiple servers.</p> <p>Support embedded remote support to transmit hardware events to OEM.</p>				
		Server Management	<p>OEM Server Management Software to monitor and view consolidated inventory and status of server resources and monitor its health.</p> <p>Update Software, Firware of Server System and its components.</p> <p>Alert about deteriorating performance, developing faults and possible failures of all vital elements of the server like disk-drives, processor, memory etc.</p> <p>Push traps and syslog of events to external Management Servers.</p> <p>Integrate with VMWare Vcentre.</p> <p>Remote Media Access with Virtual Media</p> <p>Remote video, keyboard, and mouse control with Virtual Console</p>				
		OEM Assurance	<p>Equipment supplied shall be in the current manufacturing range of the OEM and have the latest technical features and specifications.</p> <p>OEM shall assure that the model of equipment quoted shall not be declared end-of-sale by the OEM for at least 2 years from date of supply.</p> <p>OEM shall assure that the model of equipment quoted shall not be declared end-of-support by the OEM for at least 7 years from date of supply.</p>				
		OEM Warranty	<p>OEM or the bidder shall provide Warranty for cost-free parts/labor repair/replacement of hardware and update of software of the equipment supplied on NBD basis for a period of 5 years from date of installation.</p> <p>OEM shall make available a public Internet URL that can be accessed 24x7 during warranty period for product/technical support information, and track status of warranty, support contract etc.</p>				
2	RHEL Server Operating System SW for VMs		Perpetual license/subscription of RedHat Enterprise Linux 6.0 or later version, with 3year updates, self/basic support, for operation of atleast 16 VMs in a cluster of virtualized hosts, each node having 2P/24C.				
3	RHEL Workstation Operating System SW		Perpetual license/subscription of RedHat Enterprise Linux for WorkStation 6.0 or later version, with 3year updates, self/basic support, for operation in 1P/4C workstations.				

S.No.	Equipments/Services Required	Part	Technical Specifications of Equipments/Services Required	Mfr/Model Name	Mfr/Model /Part Number	Qty offered	Deviation, if any.
4	WINDOWS Server Operating System SW for VMs		Perpetual license/subscriptions of Microsoft Windows Server 2012/16, Standard / Essential Edition, with 3year updates, self/basic support, for operation of 4 VMs in a cluster of virtualized hosts, each node having 2P/12C.				
5	WINDOWS Server Operating System SW		Perpetual licenses of Microsoft Windows Server 2012/16, Standard / Essential Edition, with 3year updates, self/basic support, for operation in 2P/4C hosts.				
6	VMWare VSphere Software		VMware VSphere ESX 6.5 Standard latest version license for 4N/8P, with 3year updates, self/basic support, compliant and interoperable with VCenter 6.5 and VSAN 6.6 or later.				
7	Server Rack, 42U, 800mm x 1000mm		Server Rack, 19", 42U, 600x1200mm Floor				
			Adjustable Fully Recessible 19" Vertical Posts/Mounting Angles				
			Split pair of 19" Mounting Angles at Rear to accommodate equipment of different depths.				
			Hinged, Fully Perforated Steel Doors in Front and Rear. Vertical half-width Split Doors preferred.				
			Removable, non-perforated Steel Side Panels.				
			Steel Top Cover, with provision for Cable Entry				
			Steel Bottom Cover, with provision for Cable Entry				
			Top-Cover-mounted Ventilating Fans				
			Heavy Duty Castor Wheels with Brakes				
			42U Cable Channel with Guides/Loops				
			Load-bearing capacity of atleast 800kgs.				
			Manufactured in India by APW, APC, Rittal, HP or Netrack				
			2x 24-port PDU, with 15A/5A IEC Sockets, Power Indicator, MCB, 3m 32A Power Cable.				
Bidder's Office Seal				Signature with Date			
Name of Bidder				Name of Authorised Signatory of Bidder:			

PART B : COMMERCIAL BID

Costs as per Schedule of Equipments/Services Required.

S.No.	COMMERCIAL BID : Costs as per Schedule of Material.	Unit Supply Cost (Rs.)	QTY	UoM	Total Unit SUPPLY Cost incl.Taxes (Rs.)(A)	Goods & Service Tax (%)	Goods & Service Tax (%) (Rs.)	TOTAL SUPPLY Cost incl.Taxes (Rs.)(A x QTY)
	(Detailed Bill of Materials w/o COST to be provided as part of TECHNICAL BID by BIDDER)							
A	ACTIVE Components							
1	Dual-Processor Rack-Mount Servers		4	nos.				
2	RHEL Server Operating System SW for VMs		16	nos.				
3	RHEL Workstation Operating System SW		2	nos.				
4	WINDOWS Server Operating System SW for VMs		4	nos.				
5	WINDOWS Server Operating System SW		2	nos.				
6	VMWare VSphere SW		4	nos.				
7	Server Rack, 42U, 600mm x 1200mm		4	nos.				
	Documents, including testing and commissioning certificates, and warranty certificates.							
	TOTAL (in figures)							
	TOTAL (in words)							
Bidder's Office Seal					Signature with Date			
Name of Bidder					Name of Authorised Signatory of Bidder:			

Commercial terms and Conditions of Tender No. 201700474801 dated 11.01.2018

1. SPECIAL INSTRUCTIONS TO TENDERERS

- 1.1 The bidder is required to submit quotation for the entire scope in **TWO PART** viz, Technical and commercial bid and price bid separately. The first cover shall contain the technical and commercial details along with the format of price quotation without the price superscribing in the cover **“Technical Bid -Tender No. 2017004748, Due on 15.02.2018.** The second cover shall contain the prices superscribing in the cover **Commercial bid- Tender No. 2017004748, Due on 15.02.2018.** All the covers to be sealed and insert in another big cover super scribing the **Tender No. 2017004748, Due on 15.02.2018** and submit immediately but not later than the due date mentioned against each tender. If the tender is received after the due date and time, the same shall be summarily rejected. Only hard copy of tenders will be accepted (Fax/e-mail quotation will not accepted).
- 1.2 The **cost of tender ₹560/-** shall be submitted *along with Technical & Commercial bid by Demand Draft* drawn in favour of the Sr. Accounts Officer, IIST and payable at State Bank of India, Valiamala Trivandrum-695 547. *In case the Demand Draft is not enclosed with the quotation, the bid shall be summarily rejected.*
- 1.3 **Payment:** Our normal payment term shall be E-Transfer / within 30 days after supply/installation and acceptance for imports and indigenous respectively.
- 1.4 The installation and commissioning of equipment to be done at our campus, Valiamala, Thiruvananthapuram-695 547. All pre-requisites such as foundation drawing, grouting and any consumables needed for carrying out the installation, if applicable, shall be separately mentioned in the technical bid.
- 1.5 Delivery terms shall be Ex-works/FOB/FCA for imports and FOR, Valiamala for indigenous.
- 1.6 For import cargoes, the purchase order shall be drawn directly to the foreign supplier through agents in India. We have our own freight forwarder and customs clearance at Trivandrum shall be done by us.
- 1.7 All duties and taxes, if applicable shall be quoted separately.
- 1.8 Accreditation documents such as current income tax/sales tax clearance certificate, clientele list with previous experience in the similar lines of supply must be provided with documentary evidence), Performance Certificate, authorization for import, after sales support in India etc. shall be explained in detail with proof.
- 1.9 **Earnest Money Deposit (EMD):-** Interest free EMD to ensure the earnestness of the vendor in the participation of the procurement process to the tune of **₹90,400/-** by Demand Draft drawn in favour of the Sr. Accounts Officer, IIST, Valiamala, Trivandrum may be enclosed with Technical & Commercial bid sealed cover. The EMD will be refunded to the unsuccessful tenderers within 30 days after placement of Purchase Order. EMD will be forfeited in case the vendor withdrawn

from the quotation. The tender not accompanied with EMD shall be treated as invalid tender and summarily rejected. For direct offers from NSIC, MSMEs, etc. EMD is not applicable.

1.10 Security Deposit:- Interest free Security Deposit @ 10% of the value of Purchase Order shall be payable by successful vendor for satisfactory execution of the Purchase Order.

1.11 Performance Bank Guarantee: 10% of order value shall be submitted by the Vendor for Warranty obligation.

1.12 Liquidated Damages: The period of completion indicated shall be the essence of the contract. In the event of delayed date of delivery & Installation, the liquidated damages @ 0.5% per week or part thereof subject to a maximum of 10% of the contract value shall be recovered.

1.13 Force Majeure: During the continuance of the contract, should a part or whole of the items covered by this contract be delayed in delivery due to reasons of force majeure condition which shall include lockouts, strikes, riots, civil commotions, fire, flood, windstorm, explosion, labour disturbance, act of any Govt. or any agency, judicial action, sabotage act of civil disobedience, act of public enemy, technical failure, accidents, acts of God and war, stoppage of deliveries by Govt. etc, each party undertakes to advise the other as soon as it becomes a way of the circumstance of such force majeure, so that action under the provisions of this contract can be mutually reviewed and agreed upon between contractor and IIST. If the force majeure condition extended over a period of six months, both the parties of the contract shall mutually discussed and arrived at an agreement for the continuation/ termination of the contract forthwith.

1.14 Arbitration: Dispute if any shall be settled mutually, failing which, it will be referred to a one-man arbitrator appointed by Director, IIST in accordance with the Arbitration and Conciliation Act, 1996 and any alteration/modifications thereof, whose decision shall be final and binding on both the parties

1.15 IIST reserves the right to either accept/reject any tender/s without assigning any reason/s whatsoever.

2. Terms & Conditions of Tender Form No. DOS PM:20, Form No. DOS PM:22 & Form No. DOS PM:23 as per attachment.

Sd/-
(M.B Subash Chandran)
Sr. Purchase & Stores Officer
For and on behalf of Director, IIST